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January 17, 2003

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Room TWB-204
Washington, DC 20554

Re: Notice of Written Ex Parte Communication, In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket Nos. 01-338, 96-98 and 98-147
***** Public Version ******

Dear Ms. Dortch:

AT&T is providing two complementary analyses of the cost impairments that CLECs will incur if they are not permitted to supply POTS to their analog line customers through use of ILEC unbundled loop/switch/transport combinations (UNE-P); and instead must use current manual technologies to collect unbundled ILEC loops and backhaul these loops to the CLEC's switch location.[1]

In sharp contrast to most RBOC oppositions to the availability of UNE-P, which are based on discussions of competitive switch deployment,[2] both of these studies examine in detail the collocation costs, the loop digitizing, concentrating and multiplexing costs, the transport backhaul costs, and the hot cut costs that current ILEC procedures require CLECs to incur in order to *use* their own switches to gain access to unbundled analog loops that have been disconnected from the ILEC's switch. Consistent with other studies filed with the Commission, these two studies show CLECs suffer very significant impairments when

[1] Explanatory material relating to each model is included as an attachment to this letter. Electronic files containing the models' logic are also supplied. Because the electronic file for one of the models contains proprietary AT&T data, it is being filed confidentially under separate cover.

[2] *See*, *e.g.*, January 10, 2003 *ex parte* letter from Michael E. Glover and Suzanne Guyer of Verizon to William Mayer.

they are forced to use current procedures to gain access to unbundled ILEC loops.[3] Indeed, just two days ago SBC filed its second study of the cost impairments associated with CLECs access to unbundled ILEC loops.[4] In this study, SBC states that using the current best procedures that SBC offers, CLECs will incur extra costs in the range of $10 or more per line to serve analog line customers using unbundled SBC loops.[5] These numerical cost impairment figures compare closely with those reported here.[6]

While in general agreement with each other, and with the other relevant studies of impairment, the two studies AT&T submits here each provide a slightly different perspective into the measurement of impairment. The first study (attached as Attachment 1) examines the costs faced by a model CLEC that attempts to serve analog line customers that are currently served by ILEC wire centers of a given size. The default parameters in this model are those that are either typical for CLECs attempting to serve POTS demand, or are values that have been accepted by the Commission for use in its Synthesis Model of forward-looking costs. In any event, if the user of this model disagrees with any of these default input values or wishes to investigate sensitivities, alternative values are easily inserted into the spreadsheet model. These adjustable input parameters include:

- Total number of lines served at the ILEC end office
- Share of lines won by the CLEC
- CLEC capital carrying cost parameters (*e.g.*, rates of return, taxes, etc.)
- Capital depreciation rates and maintenance factors
- Customer churn rates
- Collocation space preparation costs and monthly rental fees
- Digital Loop Carrier (DLC) costs, capacities and concentration parameters
- ILEC special access and/or UNE transport charges
- CLEC switch termination costs
- Costs to perform, accept and coordinate hot cuts

Based on default values for the input parameters, a CLEC that obtains a very substantial 20% market share in a typical size ILEC end office serving 15,000 lines (*i.e.*, 3,000 lines), faces collocation space preparation and rental costs of $1.47/line, collocation equipment costs of $4.68/line, net backhaul costs of $0.55/line and hot cut costs of

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[3] *See*, *e.g.*, November 14, 2002 *ex parte* letter from Jay Bennett of SBC to Marlene Dortch (stating that SBC finds $246 per line in capital cost impairment to CLECs accessing unbundled loops); January 11, 2003 *ex parte* letter from Gil M. Strobel representing WorldCom to Marlene Dortch (finding a minimum cost impairment of $8.61 per line per month).

[4] *Ex parte* letter from James C. Smith of SBC to Marlene Dortch (dated January 14, 2003).

[5] *Id.,* Attachments 3 and 6.

[6] Despite SBC's plausible finding of a $10 or more CLEC cost impairment, AT&T does not believe that SBC executed correctly all of the individual components of the cost impairment analysis portion of its study. Moreover, both economic theory and existing competition law demonstrate that SBC is incorrect that impairment should be measured relative to local plus long distance margins rather than local-only costs. Further, SBC's assumed figures of $48 to $68 for customer revenues are either inaccurate or focus exclusively on high-volume customers, in contravention of the Act's purpose to bring competition to all Americans. AT&T will offer a more detailed critique of SBC's lengthy filing in a subsequent submission to the Commission.

$2.83/line – yielding a total net impairment relative to UNE-P of $9.53/line. Critically, these cost impairment figures rise substantially if the CLEC collects fewer than 3,000 lines per end office (either because it gains less than a 20% share or because it tries to collect customers from end offices serving fewer than 15,000 lines). But even in the largest ILEC end offices of 100,000 lines where a 20% CLEC share would amount to 20,000 lines, net impairment drops only to $8.12/line. This lack of significant improvement is because the costs of using current technologies for collecting and backhauling unbundled ILEC loops scale almost linearly with lines once a minimum-sized collocation space is filled at about 5,000 lines.

The second study (described in Attachment 2 and submitted under seal as Attachment 3), instead of examining a model CLEC, estimates "best case" impairment costs if a CLEC were required to serve POTS customer demand through current UNE-L technology. Similar to the first study, this study incorporates a host of user-adjustable parameters describing the cost of collecting unbundled analog loops.[7] But it differs from the first study in several important aspects. First, rather than assuming that collocation space must be acquired exclusively to serve analog loops, it assumes that the CLEC always has other uses for the collocation space (*e.g.*, private network equipment, access circuit terminating equipment, etc.) that are sufficient to "soak up" (and pay for) almost all of any remaining unused rack space in minimum-sized CLEC collocations. Second, it does not assume that self-provided interoffice (backhaul) circuits are used exclusively to connect analog loops to the CLEC switch. Instead, it assumes that the CLEC always has other demands for interoffice circuits (*e.g.*, private network sales, access and trunk interconnection circuits, etc.) that are also sufficient to "soak up" (and pay for) almost all of any remaining unused capacity in its self-provided backhaul facilities.

A further difference is that because the second study attempts to model *minimum* average impairments across the profile of non-rural ILEC end offices existing in the U.S., it employs data (from the Commission's Synthesis Model) describing the size and location of each of these ILEC end offices where a CLEC would need to seek collocation if it is to address customers that are currently served by these ILEC end offices using a UNE-L entry strategy. Thus, it uses these wire center size and location data to compute impairment costs specific to each of these wire centers, assuming that a particular share of each wire center's lines are served by the CLEC.

This study shows that if a CLEC is to gain a 5% share of customer lines across the existing mix of all ILEC wire centers currently serving more than 5,000 customer lines, it can do so only by suffering a cost impairment of $4.72/line for collocation and

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[7] User-adjustable inputs include: (1) average CLEC share and account life; (2) the minimum sized office a CLEC will consider serving; (3) whether average, minimum or maximum default values for the user-adjustable parameters are to be used; (4) whether the cost of DCS equipment at the CLEC's switch node is to be included; (5) whether LSO-to-Hub homing is to be employed and, if so, the average length of these facilities and whether a special access term plan of 3 or 5 years is to be assumed; (6) utilization levels of self-provided transport facilities; (7) typical collocation preparation charges, square footage associated with such collocations and the minimum applicable collocation preparation charge; (8) the minimum sized collocation that can be obtained by a CLEC (in square feet); (9) the proportion of existing ILEC DLC that is IDLC; and (10) the average proportion of the consumer base in the office that the CLEC will opt to address (the default assumption is 100%).

digitization/concentration equipment costs, a cost impairment of $0.84/line for backhaul costs, and a cost impairment of $2.44/line for hot cut costs. This yields a minimum expected impairment[8] relative to UNE-P of $8.01/line.[9] Similar to the first study, this study shows that even if a CLEC obtains an extremely generous 20% share of customer lines in each ILEC end office, the minimum expected cost impairment drops only to $6.84/line**.**

The results of these two studies are highly consistent. To the extent that their results differ, it is due to their different default penetration rate assumptions, input assumptions for DLC costs and their different assumptions about collocation and backhaul "fill." First, the models differ substantially in their default input costs for DLC. The first study's default DLC input costs are those that have been explicitly adopted by the Commission in its *Tenth Report and Order* in CC Docket Nos. 96-45 and 97-160 (released November 2, 1999) for use in its Synthesis Model to determine the efficient forward-looking costs of local networks. Because AT&T noted in that record (and still believes) that the Commission-accepted DLC costs are substantially overstated, the second study employs DLC input costs from the HAI v.5.3 Model that AT&T believes are more accurate depictions of the actual costs of DLC. The difference in these two choices of DLC input costs explains about $2.50/line of the difference in the results. The second difference in impairment costs originates in the second study's optimistic assumption that, due to the ability to serve other customer demand (*e.g.*, private network, access, etc.), collocation space and transport links are almost always fully loaded. At lower volumes, this optimism causes the results to lag those of the first study by about $2.00/line. But as is easily seen, at larger volumes, this difference disappears.

It is also important to note that the economic impairments quantified by these two studies only affect CLECs' ability to serve loops that terminate at the ILEC end office on analog copper facilities. To the extent that any of the customer lines terminate on ILEC DLC facilities, the impairment is even more expensive and profound.[10] Lines served off of ILEC universal DLC require extra analog/digital conversions that degrade the fidelity of the line and its ability to carry dial-up modem traffic. And lines served off of ILEC integrated DLC may not be unbundlable at all.

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[8] Unlike the quantification of the minimum impairment costs by category, which individually are sizeable, the office-by-office evaluation, determines the minimum efficient cost to address the particular customer base in the office. This cost will be higher than the sum total of each component minimum cost because it is highly improbable that optimal conditions will simultaneously occur for all cost categories in a single office. By that it is meant that the probability is virtually zero that a particular LSO will have inexpensive collocation that completely filled with DS0 equipment that is fully utilized and connected to optimally sized transport. This unlikely hypothetical is what underlies the figure produced when the cost category minimums are summed.

[9] This study also estimates the cost offset arising from the fact that the CLEC employs 100% digital lines while ILECs employ both analog and digital loops. That offset is calculated to be about $0.60 per line per month, generating a net CLEC cost disadvantage of $7.41 per line per month.

[10] The second study assumes that such lines cannot be addressed in the office and are not considered in the office share addressed by the CLEC. Likewise, PBX and Centrex business lines are not considered addressable in an office under that study, because those lines would most likely be addressed by DS1 or higher capacity serving arrangements.

In sum, these two studies are consistent with, and add detail to, the several studies already placed into the record that demonstrate the significant cost impairments CLECs will face if they are unable to obtain cost-based access to unbundled ILEC switching and shared transport UNEs in tandem with unbundled loop UNEs. Indeed, this impairment and its rough quantifications here are effectively undisputed by the incumbents for the simple reason that they are driven by the physical needs of any carrier that wants to provide POTS to customers that are served by ILEC analog loops. Moreover, the cost impairments identified by these studies represent a very significant proportion of the total costs of providing POTS service. As shown in the second study, which provides analyses for the over 4,400 RBOC LSOs serving more than 5,000 lines -- using actual data for collocation and backhaul cost inputs-- the average CLEC cost disadvantage exceeds 10% of the *total* ILEC TELRIC costs of providing POTS in *every* LSO, and more typically this disadvantage is in the 30% to 50% range. And to the extent that there may be any limited circumstances in which CLECs would not be materially impaired in their ability to provide UNE-L-based POTS service to customers served by analog loops, such cases could be identified only by reviewing the specific cost inputs relevant to providing such service in the discrete geographic area served by a particular ILEC LSO.

This last point deserves greater emphasis. Recently, WorldCom filed an analysis that found current minimum impairments of $8.61 in the most attractive ILEC LSOs and far higher impairments in more typical LSOs.[11] WorldCom noted that incremental improvements in current hot cut, collocation or backhaul costs or procedures could *never* be adequate to relieve these impairments in any LSO serving fewer than 25,000 residential lines. Further, WorldCom observed that *if* there were "significant reductions in incumbent LEC charges and [current] outstanding operational difficulties are resolved States could then perform the necessary analysis for central offices in which there are more than 25,000 lines to determine whether or not impairment exists." As the studies presented by WorldCom, SBC and AT&T have now shown, this State analysis must be LSO-specific, and must find very major reductions from current costs of collocation, DLC, backhaul and hot cuts -- as well as significant process improvements -- before CLEC impairments become competitively and economically manageable.[12]

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[11] *See* note 3, *supra.*

[12] In voicing its approval of WorldCom's statement that significant cost and process improvements could eliminate material impairment in large LSOs, SBC fails to emphasize the critical cost and process improvement antecedents that are prerequisites to WorldCom's proposal for review of individual offices. Furthermore, SBC offers no plan to implement any of these required cost reductions or process improvements. *See,* note 4, *supra.*

Consistent with Commission rules, I am filing one electronic copy of this notice and request that you place it in the record of the above-referenced proceedings.

Sincerely,

Joan Marsh

cc: William Maher
Jeff Carlisle
Michelle Carey
Brent Olson
Rich Lerner
Scott Bergmann
Thomas Navin
Jeremy Miller

ATTACHMENT 1 – Model One

ATTACHMENT 3 – Model Two
Proprietary

***** Redacted for Public Inspection *****